ABSTRACT OF THE DISCLOSURE

A sample archive method and system implement a plurality of sample carriers configured to support a plurality of sample nodes in a predetermined spatial relationship, sample storage devices for selectively placing the plurality of sample carriers in an archive, and sample node removal apparatus for locating and removing selected ones of the plurality of sample nodes. Alternative embodiments are disclosed wherein the sample node removal apparatus comprises a laser and a mechanical clipping tool, which may be manually operated or automated. An optical component may be operative to detect the location of selected sample carriers in the archive, selected ones of the plurality of sample nodes, or both. A positioning component may position the sample node removal apparatus responsive to signals transmitted by the optical component. Various apparatus and methods of archiving samples and preparing the same for analysis are also disclosed.